WHAT IS CLAIMED IS:

1. A pallet dispenser for stripping a lowermost pallet from a vertical stack of at least two pallets, comprising:

a pallet magazine for storing a vertical stack of pallets;

a platform disposed below the pallet magazine, the platform being configured to support the vertical stack of pallets, wherein the lowermost pallet at least partially rests on the platform; and

a cantilevered pusher bar configured to push the lowermost pallet from under the vertical stack of pallets and out of the pallet magazine.

2. The pallet dispenser of claim 1, wherein the pallet magazine includes a front gap sized to allow passage of the lowermost pallet.

3. The pallet dispenser of claim 2, wherein the pallet magazine includes a rear gap sized to allow passage of the pusher bar.

4. The pallet dispenser of claim 3, wherein the pusher bar is movable between a substantially vertical position and a substantially horizontal position.

5. The pallet dispenser of claim 4, wherein when in the substantially horizontal position, the cantilevered pusher bar is movable through the rear gap of the magazine to the front gap.

6. The pallet dispenser of claim 1, wherein the cantilevered pusher bar is configured to move, while in a resetting position, from a position adjacent a front of the magazine to a position adjacent a rear of the magazine.

7. The pallet dispenser of claim 6, wherein when in the resetting position, the pusher arm is in a substantially vertical position.

8. The pallet dispenser of claim 1, further including rotating means for rotating the pusher bar about an axis to move the pusher bar between a dispensing position and a resetting position.

9. The pallet dispenser of claim 8, wherein the dispensing position is a substantially horizontal position, and the resetting position is a substantially vertical position.

10. The pallet dispenser of claim 8, wherein the rotating means is a motor operably associated with the pusher bar, for rotating the pusher bar.

11. The pallet dispenser of claim 1, wherein the platform includes a smooth metal plate.

12. The pallet dispenser of claim 1, wherein the platform includes non-driven rollers.

13. The pallet dispenser of claim 1, further including means for adjusting the size of an interior of the pallet magazine.

14. The pallet dispenser of claim 1, further including:
a pusher carrier rotatably attached to the pusher bar; and
a pusher guide configured to guide movement of the pusher carrier.

15. The pallet dispenser of claim 1, further including a palletizer disposed adjacent the pallet dispenser, the pusher bar being configured to push the pallet from the pallet magazine to the palletizer.

16. The pallet dispenser of claim 1, further including motion means for providing motion to the vertical stack of pallets in the magazine.

17. The pallet dispenser of claim 16, wherein the motion means includes at least a portion of the platform.

18. The pallet dispenser of claim 16, further including:

a sensor associated with the pusher bar, the sensor being adapted to determine a jam condition of the lowermost pallet; and

a controller for activating the motion means when the sensor determines the jam condition.

19. The pallet dispenser of claim 16, wherein the motion means includes a motion bar extending through at least a portion of the platform, and a motor for moving the motion bar.

20. The pallet dispenser of claim 19, wherein the motion means further includes a motion shaft eccentrically attached to an output shaft of the motor, the motion shaft also being attached to the motion bar, such that the motion shaft drives the motion bar to provide motion to the stack of pallets.

21. The pallet dispenser of claim 19, wherein the motion bar includes rollers mounted thereon.

22. The pallet dispenser of claim 1, wherein the pallet magazine is cantilevered.

23. A method of dispensing a lowermost pallet from a vertical stack of pallets, comprising:

placing a stack of pallets in a pallet magazine;

supporting the stack of pallets with a platform of the magazine; and

pushing a lowermost pallet of the stack of pallets with a cantilevered pusher bar to strip the lowermost pallet from the stack.

24. The method of claim 21, wherein pushing the lowermost pallet includes pushing the lowermost pallet through a gap in the magazine.

25. The method of claim 24, wherein pushing the lowermost pallet includes pushing the pallet through a front gap in the magazine.

26. The method of claim 25, wherein pushing the lowermost pallet further includes moving the pusher arm through a rear gap in the magazine.

27. The method of claim 23, further including the step of restraining at least a portion of the stack of pallets in the magazine with a wall of the magazine.

28. The method of claim 23, further including loosening the lowermost pallet from the stack of pallets.

29. The method of claim 28, wherein loosening the lowermost pallet includes activating a motion assembly to provide motion to the stack of pallets.

30. The method of claim 23, further including providing motion to the stack of pallets while pushing the lowermost pallet with the cantilevered pusher arm.

31. The method of claim 30, further including sensing when the lowermost pallet catches on a portion of at least one of another pallet and the magazine.

32. The method of claim 31, further including providing motion to the stack of pallets to loosen the lowermost pallet from the stack.

33. The method of claim 29, wherein providing motion to the stack of pallets includes moving at least a portion of the platform.

34. The method of claim 28, wherein providing motion to the stack of pallets further includes moving to a motion bar, the motion bar forming at least a portion of the platform.

35. The method of claim 34, wherein providing motion to the stack of pallets further includes rotating a motion shaft associated with the motion bar, to raise and lower the motion bar.

36. The method of claim 34, wherein providing motion to the stack of pallets includes moving the motion bar in a circular motion to provide the motion, the motion causing the lowermost pallet to move in a substantially vertical direction.

37. The method of claim 23, further including:

rotating the pusher bar from a substantially horizontal dispensing position to a resetting position; and

moving the pusher bar from the front of the pallet magazine to a home position at the rear of the pallet magazine.

38. The method of claim 23, further including pushing the lowermost pallet onto a palletizer.

39. A pallet dispenser for stripping a lowermost pallet from a vertical stack of at least two pallets, comprising:

a pallet magazine for storing a vertical stack of pallets;

a platform disposed below the pallet magazine to support the stack of pallets;

pallet dispensing means for moving the lowermost pallet from a bottom of the vertical stack and out of the pallet magazine; and

motion means for providing motion to the stack of pallets.

40. The pallet dispenser of claim 39, wherein the motion means is operably associated with at least a portion of the platform.

41. The pallet dispenser of claim 39, wherein the platform includes at least one smooth metal plate.

42. The pallet dispenser of claim 39, wherein the platform includes non-driven rollers.

43. The pallet dispenser of claim 39, wherein the motion means includes a motion bar extending through at least a portion of the platform.

44. The pallet dispenser of claim 43, wherein the motion means further includes a motor for driving the motion bar.

45. The pallet dispenser of claim 44, wherein the motion means further includes a motion shaft eccentrically attached to an output shaft of the motor, the motion shaft also being attached to the motion bar, such that the motion shaft drives the motion bar to provide motion to the stack of pallets.

46. The pallet dispenser of claim 43, wherein the motion bar includes rollers mounted thereon.

47. The pallet dispenser of claim 39, further comprising:

a sensor associated with the pusher bar, the sensor being adapted to determine a jam condition of the lowermost pallet; and

a controller for activating the motion means when the sensor determines the jam condition.

48. The pallet dispenser of claim 39, wherein the pallet dispensing means includes a pusher bar.

49. The pallet dispenser of claim 48, further including a palletizer disposed adjacent the pallet dispenser, the pusher bar being configured to push the lowermost pallet from the pallet magazine to the palletizer.

50. The pallet dispenser of claim 48, wherein the pusher bar is a cantilevered bar positioned adjacent to the pallet magazine.

51. The pallet dispenser of claim 50, further including rotating means for rotating the pusher bar between a dispensing position and a resetting position.

52. The pallet dispenser of claim 51, wherein the pusher arm, when in the dispensing position, is in a substantially horizontal position and the pusher arm, when in the resetting position, is in a substantially vertical position.

53. The pallet dispenser of claim 48, wherein the pallet magazine and the pusher bar are both cantilevered.

54. The pallet dispenser of claim 39, wherein the pallet magazine includes a front gap sized to allow passage of the lowermost pallet.

55. The pallet dispenser of claim 54, wherein the pallet magazine includes a rear gap sized to allow passage of at least a portion of the pallet dispensing means.

56. The pallet dispenser of claim 55, wherein the pallet dispensing means is configured to move substantially horizontally through the pallet magazine from the rear gap to the front gap.

57. The pallet dispenser of claim 39, wherein the pallet dispensing means is cantilevered pusher bar and is configured to move while in a resetting position from a front of the magazine to a rear of the magazine.

58. The pallet dispenser of claim 57, wherein the resetting position is substantially a vertical position.

59. A method of dispensing a lowermost pallet from a vertical stack of pallets, comprising:

placing a stack of pallets in a pallet magazine;

supporting the stack of pallets on a platform;

providing motion to at least a portion of the stack of pallets to reduce friction between a lowermost pallet of the stack and the remainder of the stack of pallets; and

dispensing the lowermost pallet from the pallet magazine.

60. The method of claim 59, further including the step of restraining at least a portion of the stack of pallets in the magazine with a wall of the magazine.

61. The method of claim 59, further including:

sensing when the lowermost pallet catches on another pallet; and

loosening the lowermost pallet from the stack of pallets.

62. The method of claim 61, wherein loosening includes providing motion to the stack of pallets.

63. The method of claim 62, wherein providing motion to the stack of pallets includes moving at least a portion of the platform.

64. The method of claim 61, wherein providing motion to the stack of pallets further includes moving a motion bar, the motion bar forming at least a portion of the platform.

65. The method of claim 59, wherein providing motion to the stack of pallets includes moving at least a portion of the platform.

66. The method of claim 59, wherein providing motion to the stack of pallets includes moving a motion bar in a circular motion.

67. The method of claim 59, wherein the dispensing step includes pushing the lowermost pallet with a pusher bar.

68. The method of claim 67, further including, subsequent to the dispensing step,

rotating the pusher bar from a substantially horizontal dispensing position to a resetting position; and

returning the pusher bar to a home position.

69. The method of claim 59, further including dispensing the lowermost pallet from the pallet magazine to a palletizer.

70. An apparatus for building and wrapping a load, comprising:

a pallet dispenser including

a pallet magazine for storing a vertical stack of pallets,

a platform disposed below the pallet magazine, the platform being configured to support a stack of pallets, wherein a lowermost pallet of the stack of pallets at least partially rests on the platform, and

a cantilevered pusher bar configured to push the lowermost pallet from under the vertical stack of pallets and out of the pallet magazine;

means for building a load on the dispensed pallet;

a packaging material dispenser; and

means for providing relative rotation between the packaging material dispenser and the load to wrap packaging material around the load.

71. The apparatus of claim 70, wherein the means for building a load is a palletizer.

72. The apparatus of claim 70, wherein the means for providing relative rotation is a turntable.

73. The apparatus of claim 70, wherein the means for providing relative rotation is a rotating arm.

74. The apparatus of claim 70, wherein the pallet dispenser further includes motion means for providing motion to the stack of pallets.

75. The apparatus of claim 74, wherein the pallet dispenser further includes a motion bar, forming at least a portion of the platform.

76. A palletizing system, comprising:

a pallet dispenser including:

a pallet magazine for storing a vertical stack of pallets;

a platform disposed below the pallet magazine, the platform being configured to support the stack of pallets, wherein the lowermost pallet essentially rests on the platform;

a cantilevered pusher bar configured to push the lowermost pallet from under the vertical stack of pallets and out of the pallet magazine; and

a palletizer disposed adjacent the pallet dispenser, the pusher bar being configured to push a pallet of the stack of pallets from the pallet magazine to a palletizer.

77. The palletizing system of claim 76, wherein the pallet magazine is cantilevered.

78. The palletizing system of claim 76, wherein the platform includes means for loosening the stack of vertical pallets.

79. The palletizing system of claim 78, wherein the means for loosening is motion assembly configured to provide vibratory motion.

80. A method for building and wrapping a load, comprising:

placing a stack of pallets in a pallet magazine;

supporting the stack of pallets on a platform;

pushing a lowermost pallet of the stacked pallets with a cantilevered pusher bar to strip the lowermost pallet from the stack of pallets;

building a load on the dispensed pallet;

providing relative rotation between a packaging material dispenser and the load to wrap packaging material around the load.

81. The method of claim 80, further including loosening the stack of pallets while pushing the lowermost pallet with the cantilevered pusher arm.

82. The method of claim 80, further including pushing the wrapped load from a wrapping means with a second cantilevered pusher arm.

83. An apparatus for dispensing a lowermost pallet from a vertical stack of pallets, comprising:

a pallet dispenser including a pallet magazine for holding the stack of pallets, and a platform below the pallet magazine for supporting the stack of pallets; and

motion assembly means associated with the platform of the pallet dispenser for reducing friction between a lowermost pallet and the stack of pallets.

84. The apparatus of claim 83, wherein the motion assembly means includes a motion bar as a portion of the platform.

85. The apparatus of claim 83, further comprising

means for pushing the lowermost pallet from beneath the stack of pallets and out of the dispenser.

86. The apparatus of claim 85, wherein the means for pushing includes a cantilevered pusher arm.

87. The apparatus of claim 86, wherein the pusher arm is moveable between a substantially vertical resetting position and a substantially horizontal dispensing position.

88. The apparatus of claim 86, wherein the pusher arm includes a pushing surface and a pallet stack supporting surface.

89. The apparatus of claim 88, wherein the pusher arm further includes a rolling portion for supporting the stack of pallets.

90. A pallet dispenser for stripping a lowermost pallet from a vertical stack of at least two pallets, comprising:

a pallet magazine configured to contain the vertical stack of pallets; and

a pusher bar configured to push a lowermost pallet from under the vertical stack of pallets and out of the pallet magazine, wherein the pusher bar also is configured to at least partially support the weight of the pallets on the lowermost pallet to reduce the friction between the lowermost pallet and the adjacent pallet in the vertical stack of pallets.

91. The pallet dispenser of claim 90, wherein the pusher bar includes a roller configured to contact the pallet directly above the lowermost pallet in the vertical stack of pallets.

92. The pallet dispenser of claim 90, wherein the pusher bar includes a tapered portion, a bottom of the tapered portion being configured to have a height lower than a top of the lowermost pallet, and the top of the tapered portion being configured to have a height above the top of the lowermost pallet.

93. The pallet dispenser of claim 92, wherein the tapered portion is configured to lift the vertical stack of pallets off the lowermost pallet.

94. The pallet dispenser of claim 90, wherein the pusher bar is configured to transfer at least a part of the weight of the stack of pallets from off the lowermost pallet to the pusher bar.

95. The pallet dispenser of claim 90, wherein the roller supports the weight of the pallet stack.

96. The pallet dispenser of claim 90, further comprising a wheel on the pusher bar.

97. The pallet dispenser of claim 96, wherein the wheel on the pusher bar is configured to support weight of the pusher bar and weight of the pallets supported by the pusher arm.

98. The pallet dispenser of claim 97, wherein the wheel is disposed at one end of the pusher bar.

99. The pallet dispenser of claim 96, further comprising a track through the pallet magazine configured to support the wheel.

100. The pallet dispenser of claim 90, wherein the pusher bar includes an angled portion, and a roller adjacent a top of the angled portion.

101. The pallet dispenser of claim 90, further including a base for supporting the vertical stack of pallets, the base including rollers.

102. The pallet dispenser of claim 101, wherein the pallet magazine is spaced from the base to create a gap, and wherein the magazine includes walls configured to block the pallets above the lowermost pallet from exiting the dispenser, the gap being sized to allow the lowermost pallet to pass through the gap.

103. The pallet dispenser of claim 90, further including rotating means for rotating the pusher bar about an axis to move the pusher bar between a dispensing position and a resetting position, the dispensing position being a substantially horizontal position, and the resetting position being a substantially vertical position.

104. The pallet dispenser of claim 90, further comprising a platform including at least one of a smooth metal plate and non-driven rollers.

105. The pallet dispenser of claim 90, further including means for adjusting the size of an interior of the pallet magazine.

106. The pallet dispenser of claim 90, wherein the pallet magazine is a cantilevered pallet magazine.

107. The pallet dispenser of claim 90, further comprising:

a sensor associated with the pusher bar, the sensor being adapted to determine a jam condition of the lowermost pallet.

108. The pallet dispenser of claim 90, further comprising motion means for loosening the stack of pallets.

109. The pallet dispenser of claim 108, wherein the motion means includes a motion bar extending through a platform that supports the stack of pallets.

110. The pallet dispenser of claim 109, wherein the motion means includes a motor for driving the motion bar.

111. A method of dispensing a lowermost pallet from a vertical stack of at least two pallets, comprising:

placing a stack of pallets in a pallet magazine;

pushing a lowermost pallet with a pusher bar to strip the lowermost pallet from the stack of pallets; and

lifting the stacked pallets above the lowermost pallet with the pusher bar to reduce the friction between the lowermost pallet and the pallets above it.

112. The method of claim 111, further comprising transferring at least a part of the weight of the stacked pallets on the lowermost pallet to the pusher bar to reduce the friction between the lowermost pallet and the pallet above it.

113. The method of claim 111, wherein lifting the stack of pallets includes contacting the pallet directly above the lowermost pallet in the vertical stack of pallets with a roller on the pusher bar.

114. The method of claim 111, wherein the pusher bar includes a tapered portion, the bottom of the tapered portion having a height lower than the top of a lowermost pallet, and the top of the tapered portion having a height above the top of the lowermost pallet.

115. The method of claim 111, further comprising supporting at least a part of the weight of the upper pallets on the pusher bar.

116. The method of claim 111, wherein the pusher bar includes a roller and the method further comprises supporting at least a part of the weight of the pallet stack with the roller.

117. The method of claim 111, wherein the pusher bar is formed as a wedge having an angled portion extending upward above the level of the lowermost pallet to contact the pallet directly above the lowermost pallet.

118. The method of claim 117, wherein the roller is disposed at a top of the wedge.

119. The method of claim 111, further including a base for supporting the stack of pallets, the base including one of rollers and a platform.

120. The method of claim 119, further wherein the walls of the pallet magazine are spaced from the base to create a gap, the method further including restraining the pallet above the lowermost pallet from dispensing from the dispenser.

121. The method of claim 111, further including:

rotating the pusher bar from a substantially horizontal dispensing position to a substantially vertical resetting position; and

returning the pusher bar past the pallet magazine to a home position.

122. The method of claim 111, further including pushing the lowermost pallet with the pusher bar to a palletizer.

123. An apparatus for building and wrapping a load, comprising:

a pallet dispenser, including,

a pallet magazine for containing a vertical stack of pallets,

a pusher bar configured to push a lowermost pallet from under the vertical stack of pallets and out of the pallet magazine, wherein the pusher bar also is configured to at least partially support the weight of the pallets on the lowermost pallet to reduce the friction between the lowermost pallet and the adjacent pallet in the vertical stack of pallets;

means for building a load on the dispensed pallet; and

a packaging material dispenser.

124. The apparatus of claim 123, further comprising means for providing relative rotation between the packaging material dispenser and the load to wrap packaging material around the load.

125. The apparatus of claim 124, wherein the means for providing relative rotation is a turntable.

126. The apparatus of claim 124, wherein the means for providing relative rotation is a rotating arm.

127. The apparatus of claim 123, wherein the means for building a load is a palletizer.

128. The apparatus of claim 123, wherein the pusher bar comprises a roller configured to contact the pallet directly above the lowermost pallet in the vertical stack of pallets.

129. The apparatus of claim 123, wherein the pusher bar includes a tapered portion, a bottom of the tapered portion being configured to have a height lower than a top of a lowermost pallet, and a top of the tapered portion being configured to have a height above the top of the lowermost pallet.

130. The apparatus of claim 129, wherein the tapered portion is configured to lift the vertical stack of pallets off the lowermost pallet.

131. The apparatus of claim 123, wherein the pusher bar is configured to transfer at least a part of the weight of the stack of pallets from off the lowermost pallet to the pusher bar.

132. The apparatus of claim 123, further comprising a wheel on the pusher bar, and a track extending through the pallet magazine configured to support the wheel.

133. A method for building and wrapping a load, comprising:

placing a stack of pallets in a pallet magazine;

supporting the stack of pallets on a platform;

pushing a lowermost pallet of the stack of pallets with a cantilevered pusher bar to strip the lowermost pallet from the stack of pallets;

building a load on the dispensed pallet;

providing relative rotation between a packaging material dispenser and the load to wrap packaging material around the load.

134. The method of claim 133, further including the step of restraining the pallets of the stack of pallets that are above the lowermost pallet from being dispensed from the magazine.

135. The method of claim 133, further including providing motion to the stack of pallets while pushing the lowermost pallet with the cantilevered pusher arm.

136. The method of claim 135, wherein the motion is vibratory motion.